

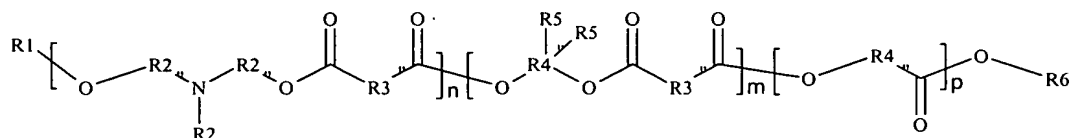
What is claimed is:

- 1 1. A polyesteramine comprising:
 - 2 a tertiary amine group;
 - 3 an ester linkage; and
 - 4 an alkyl chain.
- 1 2. The polyesteramine of claim 1, further comprising a hydroxyl group.
- 1 3. The polyesteramine of claim 2, further comprising a carboxylic acid group.
- 1 4. The polyesteramine of claim 1, further comprising a carboxylic acid group.
- 1 5. The polyesteramine of claim 1, wherein the pH is between about 7.0 and about
2 10.0.
- 1 6. The polyesteramine of claim 1, wherein the molecular weight of the
2 polyesteramine is between about 600 Daltons and about 5,000 Daltons.
- 1 7. The polyesteramine of claim 1, further comprising an aryl chain.
- 1 8. A polyesteramine comprising:
 - 2 a tertiary amine group;
 - 3 an ester linkage; and
 - 4 an aryl chain.
- 1 9. The polyesteramine of claim 8, further comprising a hydroxyl group.
- 1 10. The polyesteramine of claim 9, further comprising a carboxylic acid group.
- 1 11. The polyesteramine of claim 8, further comprising a carboxylic acid group.
- 1 12. The polyesteramine of claim 8, wherein the pH is between about 7.0 and about
2 10.0.

1 13. The polyesteramine of claim 8, wherein the molecular weight of the
2 polyesteramine is between about 600 Daltons and about 5,000 Daltons.

1 14. The polyesteramine of claim 8, further comprising an alkyl chain.

1 15. A polyesteramine having the formula:



2
3 wherein:

4 the polymer is a random co-polymer;

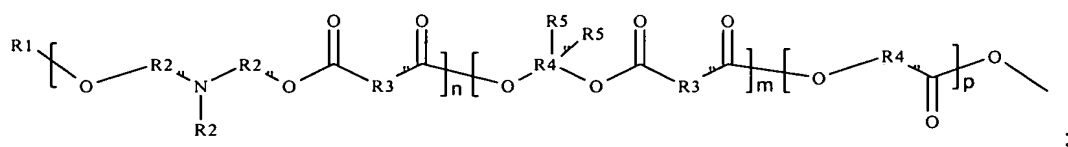
5 R1 is H or R7(C=O), wherein R7 is C₅-C₃₆ aliphatic and/or C₆ aromatic;

6 R2 is C₁-C₆ aliphatic;

7 R3 is independently a divalent radical having from 0 to 34 carbon atoms,
8 and/or a divalent aromatic radical having from 6 to 12 carbon atoms, and/or a divalent
9 aromatic radical having 2 carboxylic acid groups;

10 R4 is independently C₁-C₂₀₀ aliphatic having 0-100 oxygen atoms as ether
11 groups;

12 R5 is -H, -R4-OH, and/or



13

14 R6 is -H, -R7, , or combination

15

16 of and ;

17 n is an integer between 1-50;

18 m is an integer between 0-50; and

19 p is an integer between 0-20.

1 16. The polyesteramine of claim 15, wherein R7 is linear, branched or a
2 combination thereof.

1 17. The polyesteramine of claim 15, wherein the divalent radical of R3 is linear,
2 branched or a combination thereof.

1 18. The polyesteramine of claim 15, wherein the molecular weight of the
2 polyesteramine is between about 600 Daltons and about 5,000 Daltons.

1 19. A method of producing a polyesteramine comprising reacting:

2 a tertiary amine functional polyol;

3 a polyfunctional carboxylic acid; and

4 at least one member selected from the group consisting of monofunctional
5 carboxylic acids and monofunctional alcohols.

1 20. The method of claim 19, further comprising reacting at least one member
2 selected from the group consisting of alcohol, polyol and hydroxyacid.

1 21. The method of claim 19, wherein the tertiary amine functional polyol
2 comprises methyldiethanolamine.

1 22. The method of claim 19, wherein the polyfunctional carboxylic acid comprises
2 at least one member from the group consisting of adipic acid,
3 cyclohexanedicarboxylic acid, sebacic acid, azelaic acid, dodecanedioic acid, phthalic
4 acid, isophthalic acid, terephthalic acid, trimellitic acid, dimer acid, trimer acid, 2,6-
5 naphthalene dicarboxylic acid, and pyromellitic acid.

- 1 23. The method of claim 19, wherein the monofunctional carboxylic acid
2 comprises at least one member from the group consisting of benzoic acid, 2-
3 ethylhexanoic acid, isononanoic acid, lauric acid (C-12), myristic acid (C-14),
4 palmitic acid (C-16), isomyristic acid (Iso C-14), isopalmitic acid (Iso C-16),
5 isostearic acid (Iso C-18), coconut fatty acid (C8-C18), oleic acid (C18:1), and
6 behenic acid (C-22).
- 1 24. The method of claim 19, wherein the monofunctional alcohol comprises at least
2 one member from the group consisting of tridecyl alcohol, Guerbet alcohols, coconut
3 fatty alcohols, isooleic alcohol, and isostearyl alcohol.
- 1 25. The method of claim 20, wherein the polyol comprises at least one member
2 from the group consisting of propylene glycol, 1,3-butylene glycol,
3 cyclohexanedimethanol, trimethylpentanediol, polyoxyalkylene glycol, butyl ethyl
4 propanediol, dipropylene glycol, neopentyl glycol, glycerol, trimethylolpropane,
5 pentaerythritol, and dipentaerythritol.
- 1 26. The method of claim 20, wherein the hydroxy acid comprises at least one
2 member from the group consisting of lactic acid, glycolic acid, hydroxystearic acid,
3 and citric acid.
- 1 27. The method of claim 19, wherein the polyesteramine has an acid value from 0
2 to about 100 mg KOH/g.
- 1 28. The method of claim 19, wherein the polyesteramine has an acid value from 0
2 to about 50 mg KOH/g.
- 1 29. A lubricant composition comprising the polyesteramine of claim 1.
- 1 30. A cosmetic composition comprising the polyesteramine of claim 1
- 1 31. A method of using a polyesteramine comprising applying the polyesteramine of
2 claim 1 to skin, hair, nails, keratinous fibers, semimucous membranes and/or mucous
3 membranes.

- 1 32. A method of using a polyesteramine for industrial lubricant applications
2 comprising applying the polyesteramine of claim 1 to a surface, wherein the
3 polyesteramine is an emulsion in water.
- 1 33. A lubricant composition comprising the polyesteramine of claim 8.
- 1 34. A cosmetic composition comprising the polyesteramine of claim 8.
- 1 35. A method of using a polyesteramine comprising applying the polyesteramine of
2 claim 8 to skin, hair, nails, keratinous fibers, semimucous membranes and/or mucous
3 membranes.
- 1 36. A method of using a polyesteramine for industrial lubricant applications
2 comprising applying the polyesteramine of claim 8 to a surface, wherein the
3 polyesteramine is an emulsion in water.
- 1 37. A composition produced by reacting at least one tertiary amine functional
2 polyol, at least one polyfunctional carboxylic acid and at least one member selected
3 from the group consisting of monofunctional acids and monofunctional alcohols.
- 1 38. The composition of claim 37, further comprising reacting at least one member
2 selected from the group consisting of alcohol, polyol and hydroxyacid.
- 1 39. The composition of claim 37, wherein the tertiary amine functional polyol
2 comprises methyldiethanolamine.
- 1 40. The composition of claim 37, wherein the polyfunctional carboxylic acid
2 comprises at least one member from the group consisting of adipic acid,
3 cyclohexanedicarboxylic acid, sebacic acid, azelaic acid, dodecanedioic acid, phthalic
4 acid, isophthalic acid, terephthalic acid, trimellitic acid, dimer acid, trimer acid, 2,6-
5 naphthalene dicarboxylic acid, and pyromellitic acid.
- 1 41. The composition of claim 37, wherein the monofunctional carboxylic acid
2 comprises at least one member from the group consisting of benzoic acid, 2-
3 ethylhexanoic acid, isononanoic acid, lauric acid (C-12), myristic acid (C-14),

4 palmitic acid (C-16), isomyristic acid (Iso C-14), isopalmitic acid (Iso C-16),
5 isostearic acid (Iso C-18), coconut fatty acid (C8-C18), oleic acid (C18:1), and
6 behenic acid (C-22).

1 42. The composition of claim 37, wherein the monofunctional alcohol comprises at
2 least one member from the group consisting of tridecyl alcohol, Guerbet alcohols,
3 coconut fatty alcohols, isooleic alcohol, and isostearyl alcohol.

1 43. The composition of claim 38, wherein the polyol comprises at least one
2 member from the group consisting of propylene glycol, 1,3-butylene glycol,
3 cyclohexanedimethanol, trimethylpentanediol, polyoxyalkylene glycol, butyl ethyl
4 propanediol, dipropylene glycol, neopentyl glycol, glycerol, trimethylolpropane,
5 pentaerythritol, and dipentaerythritol.

1 44. The composition of claim 38, wherein the hydroxy acid comprises at least one
2 member from the group consisting of lactic acid, glycolic acid, hydroxystearic acid
3 and citric acid.

1 45. The composition of claim 37, wherein the composition has an acid value from
2 0 to about 100 mg KOH/g.

1 46. The composition of claim 37, wherein the composition has an acid value from
2 0 to about 50 mg KOH/g.

1 47. A hair conditioner produced by mixing deionized water, butylene glycol,
2 methylparaben, propylparaben, the polyesteramine of claim 1, cetearyl alcohol (and)
3 cetareth-20, trimethylolpropane tricaprilate/tricaprate and tocopheryl acetate.

1 48. A body wash produced by mixing deionized water, methylparaben,
2 propylparaben, tetrasodium EDTA, sodium lauryl sulfate, TEA-lauryl sulfate,
3 cocamidopropyl betaine (and) glycerin, the polyesteramine of claim 1, ethoxylated
4 coconut oil, tocopheryl acetate and citric acid.

1 49. A shaving preparation lotion produced by mixing stearic acid, pentaerythrityl
2 tetra C5-C9 acid esters, glyceryl stearate (and) PEG-100 stearate, the polyesteramine

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- 3 of claim 1, deionized water, glycerin, triethanolamine and propylene
- 4 glycol/diazolidinyl urea/methylparaben/propylparaben.